

1 This listing of claims will replace all prior versions, and listings, of claims
2 in the application:
3

4 **Listing of Claims**
5

6 Claim 1 (Currently amended): A method for accommodating a legacy
7 application, the legacy application having provisions for a low-level credential
8 authorization model which employs username-and-password based authorization,
9 the method comprising:

10 obtaining a request from a high-level credential authorization model for a
11 high-level credential [[from]] to be provided by [[a]] the legacy application,
12 wherein [[a]] the high-level credential authorization model does not employ
13 username-and-password based authorization; and

14 marshal[[I]]ing the requested high-level credential, the marshal[[I]]ing is
15 characterized by converting a description of the high-level credential into a format
16 recognizable as a low-level credential by the legacy application employing a low-
17 level credential authorization model[[:]].

18 ~~returning the marshaled credential to the legacy application.~~
19

20 Claim 2 (Original): A method as recited in claim 1 further
21 comprising, after the obtaining, seeking the requested credential in a database of
22 credentials.
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1 Claim 3 (Original): A method as recited in claim 1, wherein a high-
2 level credential is a credential selected from a group composed of X.509
3 Certificates and bio-metrics.
4

5 Claim 4 (Original): A method as recited in claim 1, wherein the
6 marshaled credentials appear to be a conventional username/password pair to the
7 legacy application.
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9 Claim 5 (Currently amended): A method as recited in claim 1, wherein
10 marshal[[I]]ing comprises:

11 obtaining the requested high-level credential;

12 ~~pickling~~converting the requested high-level credential to generate a low-
13 level credential that represents the requested high-level credential while appearing
14 to be a conventional username/password pair to the legacy application.
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16 Claim 6 (Original): A method as recited in claim 1, wherein the
17 legacy application never has access to the high-level credential.
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19 Claim 7 (Original): A computer-readable medium having computer-
20 executable instructions that, when executed by a computer, perform a method as
21 recited in claim 1.
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1 Claim 8 (Currently amended): In a .computing environment where
2 certain processes have a provision for low-level credentials but have no provision
3 for high-level credentials, wherein a provision for low-level credentials employs
4 username-and-password based authorization while a provision for high-level
5 credentials does not employ username-and-password based authorization, a
6 method for accommodating such processes comprising:

7 obtaining a request for a credential from a process, wherein the requested
8 credential is a high-level credential, which is not username-and-password based;

9 retrieving the requested credential from a database;

10 converting the requested high-level credential into a format approximating a
11 low-level credential and representative of the requested high-level credential;

12 returning the converted credential to the process.

13
14 Claim 9 (Original): A method as recited in claim 8, wherein a high-
15 level credential is a credential selected from a group composed of X.509
16 Certificates and bio-metrics.

17
18 Claim 10 (Original): A method as recited in claim 8, wherein the
19 converted credentials appear to be a conventional username/password pair to the
20 process.

21
22 Claim 11 (Original): A method as recited in claim 8, wherein the
23 process never has access to the high-level credential.

1 Claim 12 (Original): A computer-readable medium having computer-
2 executable instructions that, when executed by a computer, perform a method as
3 recited in claim 8.

4
5 Claim 13 (Original): A method for authenticating a user to a network,
6 the method comprising:

7 obtaining a request for a credential to authenticate the user to access a
8 resource within the network, wherein the resource requires an appropriate
9 credential before the user may access the resource;

10 locating the appropriate credential;

11 returning the appropriate credential to the resource within the network, so
12 that the resource allows the user to access such resource;

13 wherein the obtaining, locating, and returning are performed without user
14 interaction so that the user need not be aware that such steps are being performed.

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16 Claim 14 (Original): A method as recited in claim 13 further
17 comprising repeating the obtaining, locating, and returning for a different network
18 that is authenticated using a different credential.

19
20 Claim 15 (Original): A computer-readable medium having computer-
21 executable instructions that, when executed by a computer, perform a method as
22 recited in claim 13.

23
24 Claims 16-17 (Canceled)

1 Claim 18 (Previously presented): A credential management
2 architecture, comprising:

3 a trusted computing base (TCB) that has full access to persisted credentials,
4 the TCB being configured to interact with an untrusted computing layer (UTCL)
5 that accesses the persisted credentials via the TCB;

6 the TCB comprises:

7 a credential management module configured to receive requests from
8 the UTCL for a high-level credential for a resource, the high-level
9 credential being associated with a user and not being username-and-
10 password based authorization;

11 a credential database associated with the user, wherein credentials
12 are persisted within the database;

13 the credential management module being configured to retrieve
14 credentials from the database.

15
16 Claim 19 (Previously presented): An architecture as recited in claim
17 18, wherein credential management module is further configured to marshal a
18 requested high-level credential and return the marshaled credential to the UTCL.

19
20 Claim 20 (Original): An architecture as recited in claim 18, wherein
21 the marshaled credentials appear to be a conventional username/password pair to
22 the UTCL.

1 Claim 21 (Original): A computer-readable medium having computer-
2 executable instructions that, when executed by a computer, employ an architecture
3 as recited in claim 18.
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5 Claim 22 (Original): An operating system embodied on a computer-
6 readable medium having computer-executable instructions that, when executed by
7 a computer, employ an architecture as recited in claim 18.
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9 Claim 23 (Previously presented): An apparatus comprising:
10 a processor;
11 a marshaler executable on the processor to:

12 obtain a high-level credential, wherein a high-level credential
13 is employed in an authorization model which is not username-and-
14 password based authorization;

15 convert the high-level credential to generate a representation
16 of the high-level credential that is formatted as a low-level credential
17 so that it appears to be a conventional username/password pair.
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1 Claim 24 (Currently amended): An ~~low-level-credential-~~
2 ~~application~~-accommodation system comprising:

3 a request obtainer configured to obtain a request for a high-level credential
4 from a low-level-credential-application, wherein low-level credentials utilizes
5 username-and-password based authorization while high-level credentials do not
6 employ username-and-password based authorization;

7 a credential retriever configured to retrieve the requested credential from a
8 database of credentials;

9 a marshal[[1]]er configured to marshal the requested credential and return
10 the marshaled credential to the low-level-credential-application, [[the]]wherein
11 marshal[[1]]ing performed by the marshal[[1]]er is characterized by converting a
12 description of the high-level credential into a format recognizable as a low-level
13 credential by the low-level-credential-application employing a low-level credential
14 authorization model.

15
16 Claim 25 (Original): A system as recited in claim 24, wherein a high-
17 level credential is a credential selected from a group composed of X.509
18 Certificates and bio-metrics.

19
20 Claim 26 (Original): A system as recited in claim 24, wherein the
21 marshaled credentials appear to be a conventional username/password pair to the
22 legacy application.

23
24 Claim 27 (Canceled)

1 Claim 28 (Previously presented): A system as recited in claim 24,
2 wherein the low-level-credential-application never has access to the high-level
3 credential.

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5 Claim 29 (Currently amended): A system for authenticating a user
6 to a network, the system comprising:

7 a request obtainer configured to obtain a request for a high-level credential
8 to authenticate the user to access a resource within the network, wherein the
9 resource requires an appropriate credential before the user may access the
10 resource, wherein a high-level credential do not utilize username-and-password
11 based for high-level credential authorization;

12 a credential retriever configured to retrieve the appropriate high-level
13 credential from a database of credentials;

14 a credential marshal[[l]]er configured to generate a representation of the
15 high-level credential ~~that is~~ formatted as a low-level credential so that it appears to
16 be a conventional username/password pair to a low-level-credential-application,
17 wherein a low-level credential utilizes username-and-password based
18 authorization;

19 a credential returner configured to return the marshaled high-level
20 credential to the resource within the network, so that the resource allows the user
21 to access such resource;

22 wherein the obtainer, retriever, marshal[[l]]er, and returner are further
23 configured to operate without user interaction.

1 Claim 30 (Original): An operating system comprising a system as
2 recited in claim 29.

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4 Claim 31 (Original): A network environment comprising a system as
5 recited in claim 29.

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7 Claim 32 (Currently amended): An application programming interface
8 (API) method comprising:

9 receiving a CredUI-promptfor-credentials call having a set of parameters
10 comprising a TargetName, Context, AuthFlags, and Flags;

11 ~~retrieving parsing the call to retrieve~~ the parameters ~~from the call~~ to
12 determine a specified resource;

13 obtaining a credential;

14 associating the credential with the specified resource;

15 persisting the credential into a database while maintaining the credential's
16 association with the specified resource.

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18 Claim 33 (Original): A method as recited in claim 32, wherein the set
19 of parameters further comprises an indicator of a data structure containing
20 customized information to display in conjunction with a user interface.

1 Claim 34 (Currently amended): An application programming interface
2 (API) method comprising:
3 receiving a CredUI-promptfor-credentials call having a set of parameters
4 comprising a TargetName, UserName, Password, and Flags;
5 ~~retrieving parsing the call to retrieve~~ the parameters ~~from the call~~ to
6 determine a requesting application;
7 obtaining a low-level credential from a user, wherein such credential
8 includes a username and a password;
9 returning the low-level credential to the requesting application.

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11 Claim 35 (Original): A method as recited in claim 34, wherein the set
12 of parameters further comprises an indicator of a data structure containing
13 customized information to display in conjunction with a user interface.
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